FOR DISCUSSION PURPOSES ONLY

NOT FOR ENTRY INTO WRITTEN RECORD

1. (Currently amended)   A pattern measuring apparatus comprising:

a storage device to store a plurality of <u>physical</u> images of a pattern to be measured and predetermined edge reference data, the predetermined edge reference data comprising a plurality of pixels that have an intensity gradient~~, the images having been captured by an external imaging device at different focal distances~~;

<u>an external imaging device to capture the physical images at different focal distances;</u>

a processor to, for each of the <u>physical</u> images, (i) scan the <u>physical</u> image, using the predetermined edge reference data, to detect edge points of the <u>physical</u> image and (ii) <u>compare the predetermined edge reference data to the intensity values of the physical image at the edge points to generate</u> ~~output~~ a plurality of correlation values<u>,</u> <u>each of the correlation values indicating</u> ~~that indicate correlations~~ <u>a correlation</u> between the edge reference data and the <u>intensity value of the physical image at a respective</u> edge <u>point</u> ~~points~~;

a calculator to, for each of the <u>physical</u> images, calculate a standardized correlation value <u>based on the correlation values of the physical image, the</u> <u>standardized correlation value expressing</u> ~~that expresses~~ a correlation between the predetermined edge reference data and the detected edge points of the <u>physical</u> image, ~~based on the correlation values~~ <u>wherein each of the standardized correlation values</u> <u>corresponds to one of the physical images</u>;

a determinator to, for each of the <u>physical</u> images, determine an in-focus state of the <u>physical</u> image, based on the standardized correlation value for the <u>physical</u> image;

an image selector to select one of the <u>physical</u> images from the plurality of <u>physical</u> images, the determined in-focus state of the selected <u>physical</u> image matching a preselected in-focus state; and

a measurer to process the selected <u>physical</u> image to measure the pattern.